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LEFT VENTRICULAR HYPERTROPHY AND ANTIARRHYTHMIC DRUGS IN ATRIAL FIBRILLATION: IMPACT ON MORTALITY

ACC Oral Contributions
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Background: Despite sparse data, atrial fibrillation (AF) guidelines proscribe use of antiarrhythmic drugs (AADs) other than amiodarone (AM) with substantive left ventricular hypertrophy (LVH). We tested the hypothesis that mortality is higher in AF patients on non-AM AADs.

Methods: In patients undergoing 1st cardioversion for AF at our institution, mortality (via the Social Security Death Index) and clinical data, including AADs, wall thickness and ejection fraction (LVEF), were studied using Kaplan-Meier and Cox proportional hazards models.

Results: In 3926 patients, wall thickness was available in 1395 (age 67±12 yrs, 69.7% male, LVEF 46±15%, septum 1.3±0.4, posterior wall 1.2±0.2 cm). 535(38%) had LVH≥1.4cm and 347(25%) LVH≥1.5cm. Of 667 on AADs, 300(45%) were on AM and 367 on non-AM AADs. Over f/u of 5.3±2.6yrs, 477(34%) died, 147(49%) on AM and 105(29%) on non-AM AADs, p<.001. In those with LVH≥1.4 cm, 114(21%) were on AM and 134(25%) on non-AM AADs. Among 194 deaths (36%), 56(49%) were on AM, 37(28%) on non-AM AADs and 101(35%) on no AADs. AM was associated with lower survival in Kaplan-Meier analysis (p=0.002), but no difference was present (p=0.38) after adjusting for age and LVEF, the strongest predictors of mortality. Trends toward better survival in non-AM AAD compared to AM patients were seen (p=0.065). Similar results were observed in patients with LVH≥1.5 cm.

Conclusions: No significant difference in survival was observed in AF patients using amiodarone or non-amiodarone AADs.